EUROPEAN JOURNAL OF BIOMEDICAL AND PHARMACEUTICAL SCIENCES
http://www.ejbps.com

ISSN 2349-8870
Volume: 5
Issue: 9
495-498
Year: 2018

ASSESS THE FOOT HEALTH STATUS AMONG OLDER ADULTS IN SELECTED AREAS OF COMMUNITY AT MANGALURU

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Article Received on 16/07/2018 **Article Revised on 07/08/2018** **Article Accepted on 28/08/2018**

ABSTRACT

Background: Foot is an important part of our body it contains 25% of total bones and also comprises of joint and muscles. 8% of the population of India are older adults and need support to maintain their foot health by knowing warning signs of health deterioration for some of the major disease. **Objectives of the Study:** To determine the level of foot health status among older adults, To find the association between foot health status scores and selected demographic variables. **Methods:** A non evaluatory quantitative survey approach with descriptive research design was conducted with 80 older adults. Foot pain assessment and foot health assesssment is done through color coded pain scale and rating scale using convenience sampling technique. Pilot study was conducted to find out the feasibility of the study. Data collected from the sample were analyzed by descriptive and inferential statistics. **Results:** Overall foot health status of the older adult shows that 48.8% of older adults have adequate foot health status, 28.8% have moderately adequate foot health status and 22.5% have inadequate foot health status. **Conclusion:** There is a significant association between foot health status score and baseline characteristics such as age, residing and BMI. The overall findings of the study revealed that majority of the older adults have adequate foot health status. Implications for nursing: Nurses play a major role in the health promotion and maintenance. Nurses can help to prevent foot health problems by teaching importance and maintainance of safer foot health practices. Implications for social policy Older adults will be able to realise the importance and maintains a safe foot health status, which will result in better economic and social outcomes for individual and communities.

KEYWORDS: Assess, Foot Health Status, Older Adults, Community Area.

INTRODUCTION

Foot is an important body part. It is important for weight bearing, balancing, and mobility. Sustained mobility often enables older adults to minimize their independence and ability to socialize. As we age, our feet tend to spread and we lose the fatty pads that cushion the bottom of our heels and the balls of our feet. If we are carrying extra weight, our bone and ligament structure may also be affected.

The comfort and care of feet are often neglected. Foot problems associated with aging or disease processes often go unrecognized and untreated. Age-related and disease related foot problems can create situations in which older adults experience pain, decreased range of motion, and infection, thereby decreasing their functional ability to ambulate well.

The human foot is sometimes called the 'mirror of health'. Because our feet often provides early indications of conditions such as diabetes, arthritis or circulatory disease. Taking good care of feet has many benefits, including: increasing comforts, limiting the possibility of additional medical problems, reducing chance of hospitalization due to infection, and keeping active and mobile. Hence, an attempt has been made by the investigators to assess the foot health status of older adults.

Foot pain has long been recognized as highly prevalent in older people, affecting approximately one in three people aged over 65 years.

Foot care is part of an individual's daily hygiene routines and nurses have an important role in ensuring patient receive it. The investigators often have witnessed clients coming to the hospital or living in the communities with

ankle pain, pain in the sole cracked heels, corns, callous etc. The health professionals believe in holistic health care, their total body examination tend to exclude below ankle. Hence investigators felt the need to take this study and hoping this study would boost the nurses to consider the importance of assessing foot health status of the client in all possible settings.

MATERIALS AND METHODS

Sample and setting

A non evaluatory quantitative survey approach with descriptive research design was conducted with 80 older adults. Foot pain assessment and foot health assesssment is done through color coded pain scale and rating scale using convenience sampling technique .

Overall foot health status of the older adult shows that 48.8% of older adults have adequate foot health status,28.8% have moderately adequate foot health status and 22.5% have inadequate foot health status. Data collected from the sample were analyzed by descriptive and inferential statistics. (spss).

Ethical approvals

Written approvals for the study were obtained from the ethics committee of our Institution and the management board of the related university hospital (approval number: YUEC115/2017 Date: 22.03.2017). Ethical principles were complied in accordance with ICMR Guidelines and DCGI(CDSCO) Informed consent was obtained from all participants included in the study (Emanuel et al. 2004).

Data collection: We developed a questionnaire covering participants' personal characteristics and Tool -A Foot pain assessment, Tool- B Foot health status assessment through foot function index. The questionnaire comprised of 4 point rating scale;The respondents were asked to state their opinions for each statement on the scale by choosing one of the 4 response options: No pain (0), Mild pain (1), Moderate pain (2), Worst pain (3); however, the researchers were present to respond to any queries from the older adults. We performed factor and reliability analyses for the scale; the overall reliability of the items by using test-retest method was $\alpha = 0.91$, and the factor analysis found the scale was feasible. Foot pain assessment through color coded pain score.

Data analysis: Data were analysed using the Statistical Package for the Social Sciences (SPSS) Version 21.0 (IBM SPSS Statistics for Windows, Version 21.0.; IBM Corp., Armonk, NY, USA). Researchers used descriptive statistics (frequency, percentage, mean and standard deviation) to evaluate participant characteristics. We used tests (chi-square)to analyse statistical meaning and association of foot health status with demographic characterstics) The results were evaluated using a confidence interval (CI) of 95% and a significance level of 0.05 level of significance (Spiegel & Stephens 2013).

RESULTS AND FINDINGS

The characteristics of the participants are presented in Table 1. The mean values of the foot health status scores are set out in Table 2.

The data presented in the table 3- revealed that there is a significant association between foot health status score and baseline characteristics in terms of age, residing and BMI.Hence the null hypothesis is rejected and research hypothesis accepted.

Table. 1: Distribution of baseline characteristics in terms of frequency and percentage N = 80.

Sl. No.	Sample characteristics	Category	Frequency (f)	Percentage (%)
1	Age in year	60-69 70-79 80 & above	58 20 2	72.5 25 2.5
2	Gender	Male Female	31 49	38.8 61.3
3	Residing with	Family Friend/s All alone	78 1 1	97.5 1.3 1.3
4	BMI	<18.5 18.5-24.99 25-29.99 30-34.99	5 62 11 2	6.3 77.5 13.8 2.5
5	Ambulatory	No	80	100

Mean values of foot health status among older adults: Overall mean values - 25.75 Mean %- 54.78 SD- 23.

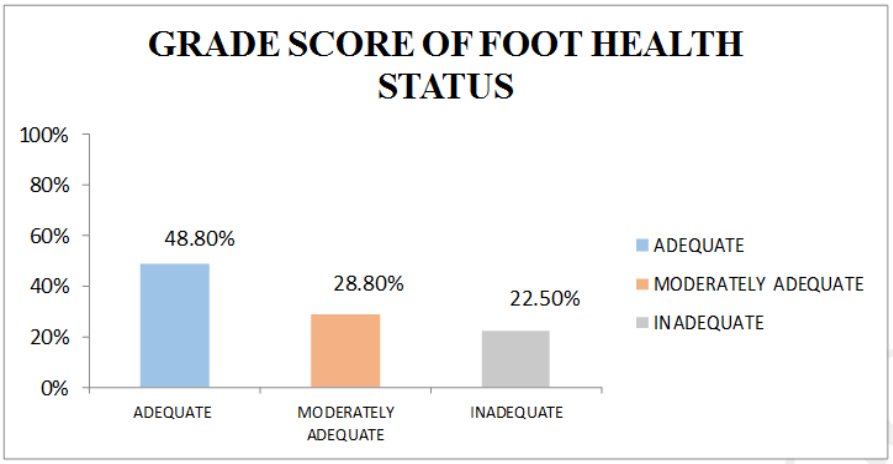

Fig. 1: Grading of Overall Foot Health Status.

Table. 2: Association between foot health status score and selected baseline characteristics N = 80

Sl. No	Baseline Characteristics	Above Median(≥ 24)	Below Median(<24)	χ^2	df	P value	Inference
1.	Age:			61.3 (YC)	2	0.001	sig.
	60-69 years	51	7				
	70-79 years	19	1				
	80 & above	2	0				
2.	Gender :			4.05 (YC)	1	0.44	Not sig.
	Female	29	2				
	Male	43	6				
3.	Residing with			148.2 (YC)	2	0.001	sig.
	Family	70	8				
	Friends	1	0				
	All alone	1	0				
4.	BMI			119.7 (YC)	3	0.001	sig.
	<18.5	5	0				
	18.5-24.99	55	7				
	25-29.99	10	1				
	30-34.99	2	0				

DISCUSSION

In this study more than two- third proportions (72.5%) were between the age group of 60-69 years and 25% were between 70-79 years and most of the older adults (61.3%) were female and residing with the family (97.5%). Around 77.5% of the older adult BMI were 18.5 to 24.99.the study also revealed that 100% were not using any ambulatory devices. The grading of overall foot health status of the older adult shows that 48.8% of older adults have adequate foot health status, 28.8% have moderately adequate foot health status and 22.5% have inadequate foot health status. The chi square test to find that association between the foot health status and baseline Proforma. It can be concluded that characteristics in terms of age, residing with and BMI except for the gender.

There are abundant opportunities for nursing professionals to educate the older people as well as their family members regarding maintenance of foot health in older adults. The study also implies that health personal have to be trained well on how to teach them regarding foot health and prevention of foot health problems. Nursing students should be trained to acquire knowledge in assessing the foot health status of older adults and plan out a teaching program based on the same in the hospitals and community settings.By conducting research and formulating new theories researchers can improve the status and standard of the nursing profession. The study findings help to motivate and initiate further research related to foot health status.

A cross sectional study conducted to assess the Relationship between Toe grip strength (TGS) and dynamics balance or functional mobility among community-dwelling Japanese older adults. Were the samples consists of 665 healthy Japanese older adults. The result indicate that, among both men and women, toe grip strength was associated with the timed up and go test, independent of age, height, weight and isometric knee extension strength, but TGS was not associated with the functional reach test. This result may facilitate the developmental strategies for improving functional mobility through physical therapy.

CONCLUSION

The result shows that more than two-third proportions (72.5%) were between the age group of 60-69 years. 61.3% of the sample were females. 97.5% of the older adults were residing with their family.77.5% of the older adults BMI were in the range of 18.5-24.99. the study also revealed 100% of them were not using any ambulatory devices. Part-2: The study result shows that 48.8% of them were maintaining adequate foot health status, 28.8% of them were maintaining moderately adequate foot health status and 22.5% of them had inadequate adequate foot health status. Part-3: The study result shows that there is no significant association between foot health status score and baseline Proforma characteristics in terms of age, residing with and BMI except gender. Based on the above findings it concludes that awareness need to be created among the older group about the signs, symptoms and complications of adverse effects of foot health.

ACKNOWLEDMENT

We owe our heartfelt thanks to **Dr. Leena K.C,** Principal, Yenepoya Nursing College, for her inspiration, encouragement and constant support, To The Medical officer of Kottekar Primary Health Centre, for giving permission to conduct the research in community area, **Dr. Devina E. Rodrigues,** for giving her expert guidance, keen interest and valuable suggestions in conceptualizing study, **Mrs.Vani R.,** Lecturer Department of Community Health Nursing. Yenepoya Nursing College. We express our sincere gratitude to madam for her inspiring guidance, constructive suggestions, constant care and concern and encouragement to undertake the work successfully. We express special thanks **to Mrs. Himani** for her valuable suggestion and guidance regarding the application of proper statistical methods. We grateful to all the **experts** for their valuable suggestions and for validating the data collection tool. Our special thanks to all participants who enthusiastically participated in the study and for being very co-operative and also adding light to our studies with their heartfelt expression. We owe our deep sense of gratitude to **our parents** for their support and trust in our abilities.

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